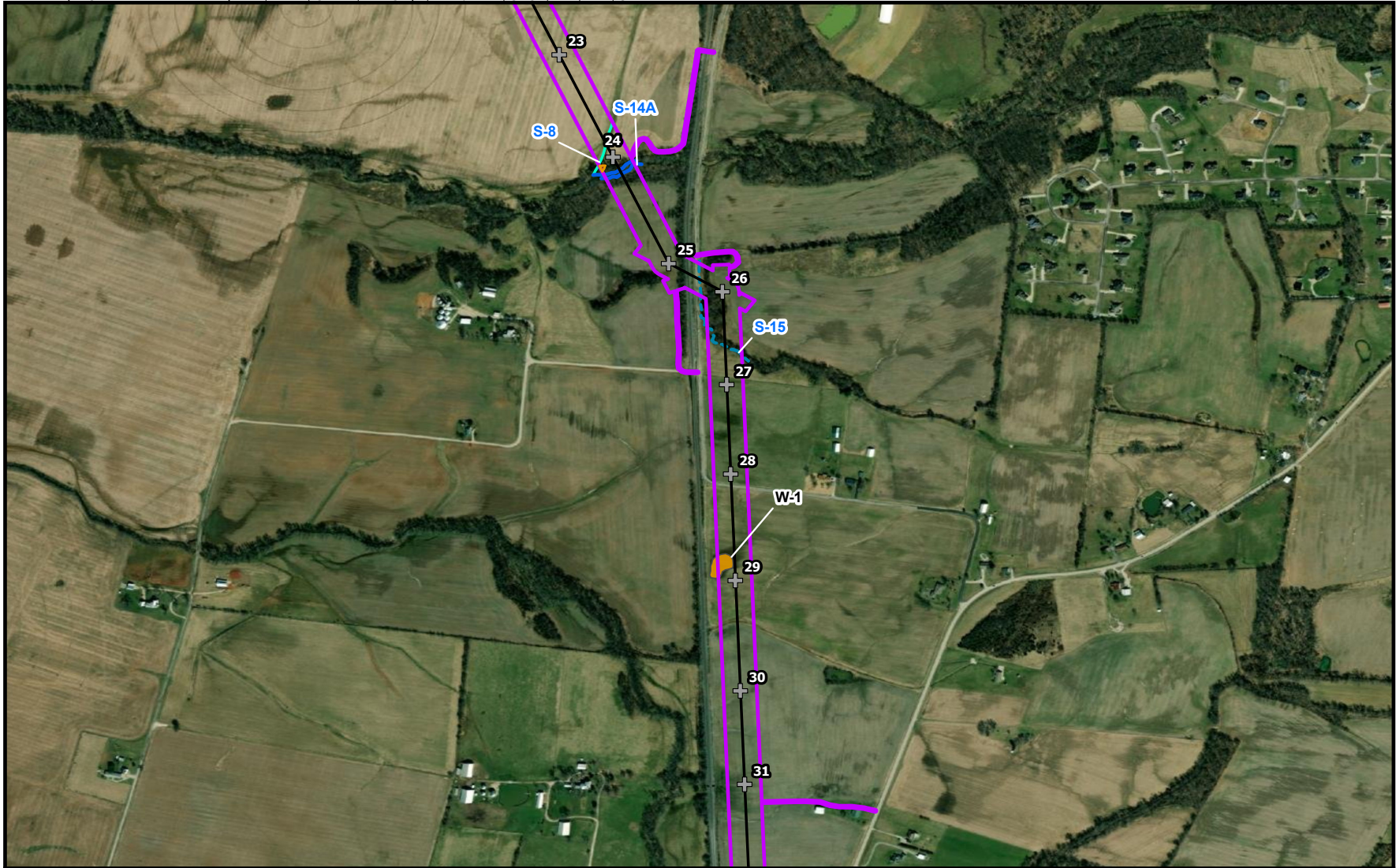


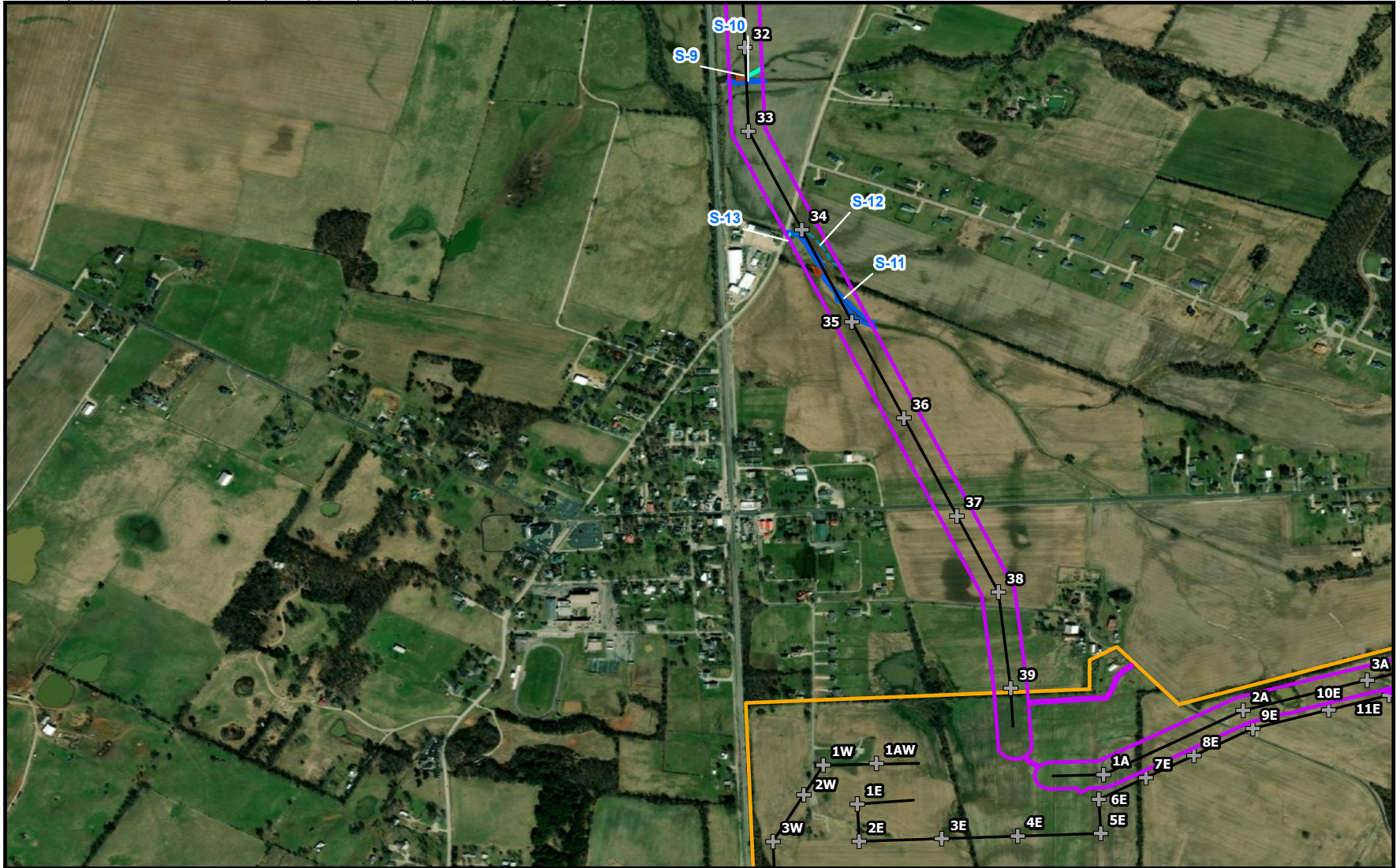
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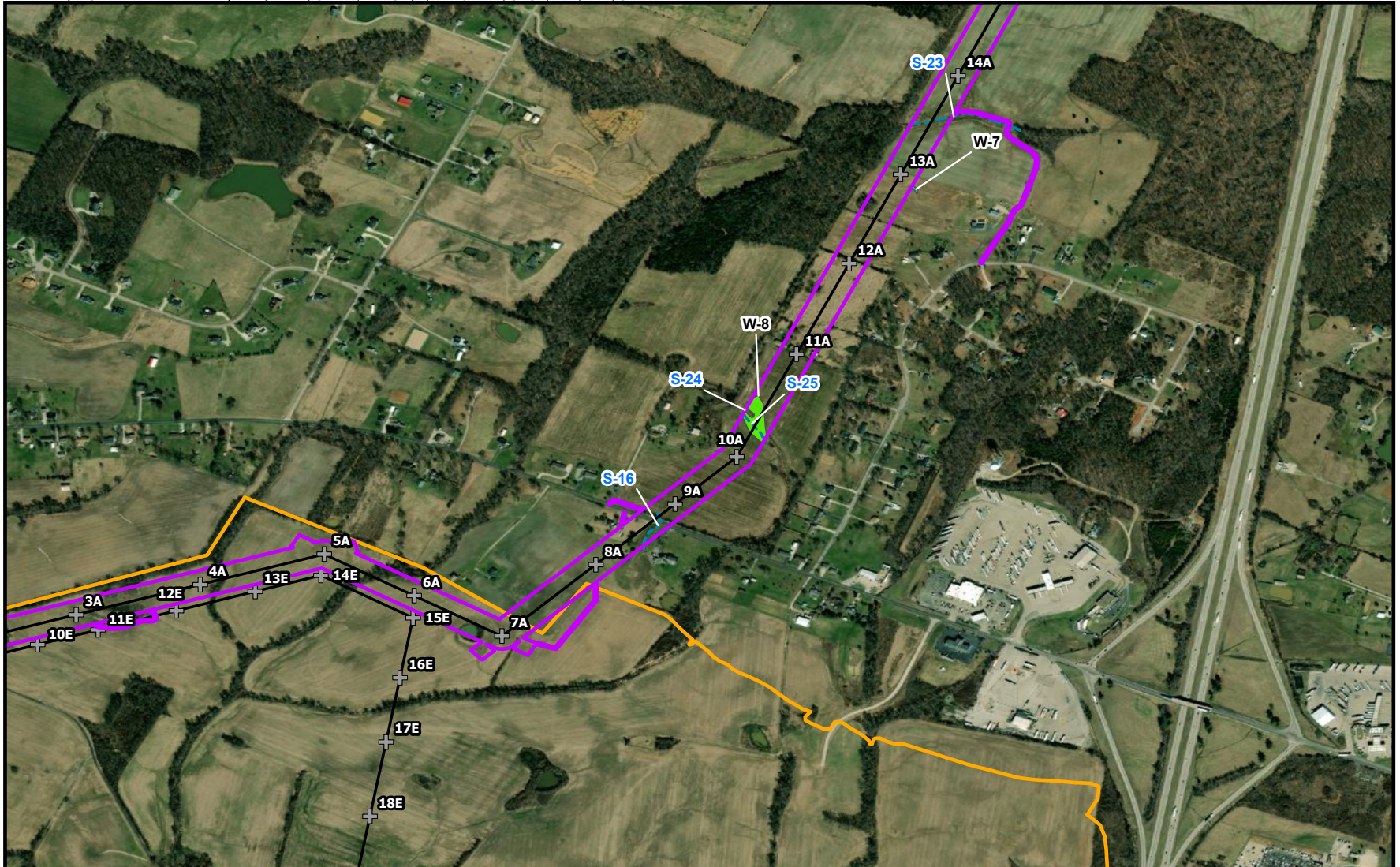
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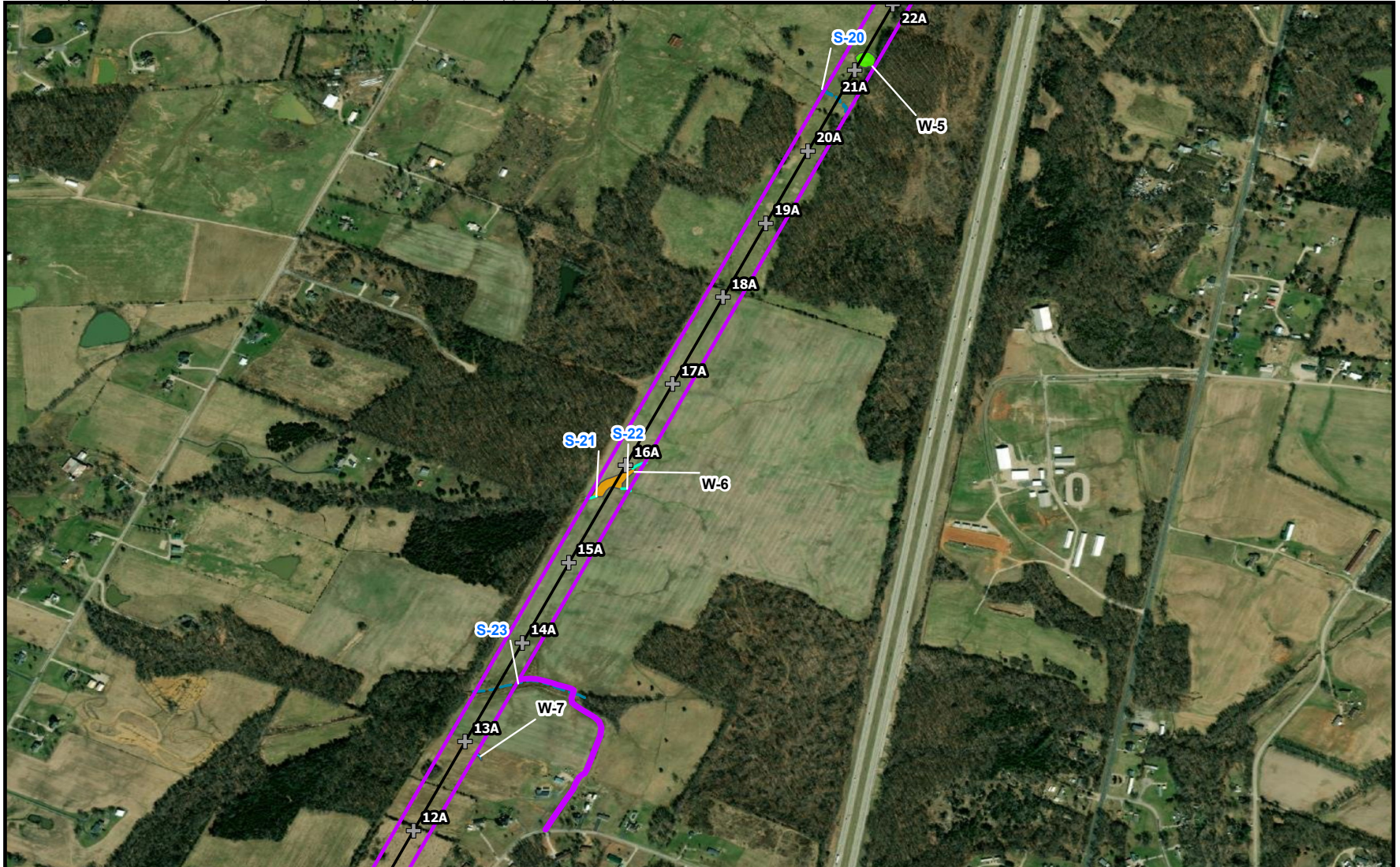
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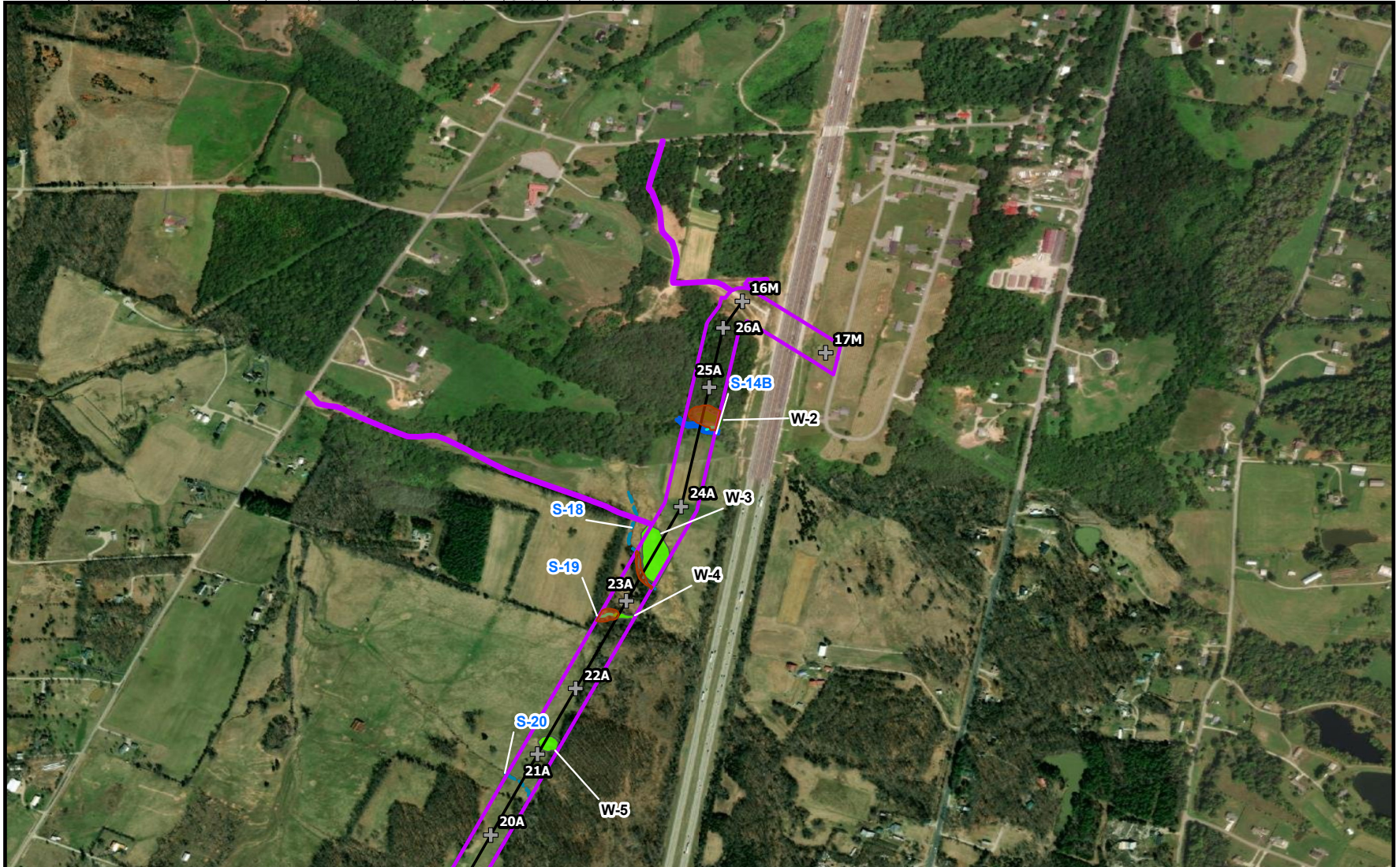
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Federally Protected Species Habitat Assessment for the Glendale 345kV Transmission Lines Project

LG&E-KU Energy Services Company

**Glendale 345kV Transmission Lines Project
Project No. 144025**

May 27, 2022

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
BCC	Bird of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
ESA	Endangered Species Act
IPaC	Information for Planning and Consultation
KNP	Office of Kentucky Nature Preserves
LG&E-KU	Louisville Gas and Electric Company and Kentucky Utilities Company
MOU	Memorandum of Understanding
MBTA	Migratory Bird Treaty Act
MRLC	Multi-Resolution Land Characteristics
NLCD	National Land Cover Database
Project	Glendale 345kV Transmission Lines Project
Project Area	Glendale 345kV transmission lines (LI-167000 and LI-167444) right-of-way and proposed access routes
ROW	Right-of-way
Survey Area	216 acres including transmission lines right-of-way and proposed access routes
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USFS	U. S. Forest Service

1.0 INTRODUCTION

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by Louisville Gas and Electric Company and Kentucky Utilities Company (LG&E-KU) Energy Services Company to perform a protected species habitat assessment for the proposed Glendale 345kV Transmission Lines Project (Project) that is located in Hardin County, Kentucky (Figure 1, Appendix A). The Project consists of two new 345kV transmission lines (LI-167000 and LI-167444) totaling 8.2 miles as well as the use of access routes totaling approximately 12 miles. LI-167000 is approximately 4.8 miles totaling 35 structures. LI-167444 is approximately 3.4 miles totaling 27 structures. The Project will be located with a new 200-foot right-of-way (ROW). The Project Area encompasses a total of 216 acres, which includes the 200-foot ROW, 5-foot-wide access roads and potential pull pad locations that extend outside of the ROW, and approximately 0.5 acre access and work area for stringing new OPGW wires from the existing Hardin County Substation to Structure 4 of LI-167000. The Survey Area for the protected species habitat assessment consists of the entire 216 acre Project Area, with approximately 26 acres of the Survey Area being previously covered by Third Rock Consultants LLC in November and December 2021. The results of the habitat assessment conducted by Third Rock Consultants LLC is not included in this protect species habitat assessment report.

This habitat assessment report describes the methods and results of the desktop analysis and field habitat assessments and provides recommendations for the Project to remain in compliance with the following regulations:

- Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.) as implemented by the U.S. Fish and Wildlife Service (USFWS);
- Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668) as implemented by the USFWS;
- Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703) as implemented by the USFWS

2.0 DESKTOP ANALYSIS

Burns & McDonnell conducted a desktop review, which included a review of the USFWS and Office of Kentucky Nature Preserves (KNP) databases to identify potential habitat for protected species in the vicinity of the Survey Area and to help focus the field assessment effort. The online USFWS Information for Planning and Consultation (IPaC)¹ was used to identify federally protected species within the Survey Area in Hardin County. An IPaC report was officially submitted to the USFWS on April 14, 2022 (Project Code: 2022-0032255) which identified five species that may occur within the Survey Area. Three species are listed as federally endangered, one species is listed as federally threatened, and one species is listed as a candidate species (Table 2-1 and Appendix B).

Table 2-1: IPAC List of Federally Protected Species within the Survey Area

Common Name	Scientific Name	Habitat Type	Federal Listing Status	Proposed Effect Determination
Mammals				
Gray bat	<i>Myotis grisescens</i>	Year-round cave obligate species, roosting in caves during both hibernation and summer. Foraging habitat is associated with rivers, streams, lake, or reservoirs. Use forest corridors to travel between caves and foraging areas.	Endangered	No Effect
Indiana bat	<i>Myotis sodalis</i>	Hibernates in caves and abandoned mines. Roost in exfoliating/loose tree bark of living and dead trees, or cavities and hollows of dead trees.	Endangered	May Affect, Likely to Adversely Affect
Northern long-eared bat	<i>Myotis septentrionalis</i>	Hibernates in caves and abandoned mines. Roost in exfoliating/loose tree bark of living and dead trees, or cavities and hollows of dead trees.	Threatened	May Affect, not Likely to Adversely Affect ^a
Clams				
Snuffbox mussel	<i>Epioblasma triquetra</i>	Sand, gravel, or cobble substrates in swift small and medium-sized rivers.	Endangered	No Effect
Insects				

¹ <https://ecos.fws.gov/ipac/>

Common Name	Scientific Name	Habitat Type	Federal Listing Status	Proposed Effect Determination
Monarch butterfly	<i>Danaus plexippus</i>	Found in open fields and meadows during the summer season. Specifically native flowers and milkweed are needed as host plants for monarch larva.	Candidate	No Effect

Source: USFWS IPaC Official Species List, April 14, 2022 (Project Code: 2022-0032255)

(a) 4(d) = Federally listed with 4(d) rule exemptions on specific activities traditionally identified as take activities under the Endangered Species Act.

The IPaC database did not identify any migratory bird species protected by the BGEPA and MBTA that may potentially occur within the Survey Area.

3.0 FIELD ANALYSIS

Based on the desktop evaluation, Burns & McDonnell biologists conducted onsite, field habitat assessments from March 8 through 10, 2022 within the Survey Area. All habitat types within the Survey Area were categorized based on vegetation communities, position in the landscape, and other relevant characteristics. Potential federal protected species occurrence and/or their habitat was evaluated based on species characteristics and habitat preferences. Appendix D contains potential species habitat photographs.

Land cover from Multi-Resolution Land Characteristics (MRLC) Consortium's National Land Cover Database² (NLCD) was used along with onsite field habitat assessments to evaluate the Survey Area (Appendix A; Figure 2). Predominant land cover identified from the NLCD included deciduous forest and mixed forest with smaller portions of developed, open space, pasture/hay, developed, low intensity, and developed, medium intensity. Land cover identified during field habitat assessments generally corresponded to the NLCD and included primarily cultivated crops and pasture/hay with smaller portions of deciduous forest and interspersed wetlands.

Cultivated crops and pasture/hay land cover are distributed throughout the Survey Area and comprise approximately 83 percent of the Survey Area combined. Cultivated crops encompass 62 percent of the Survey Area and include primarily farmed corn and soybeans. Pasture/hay land cover encompasses 21 percent of the Survey Area and consists primarily of Kentucky bluegrass (*Poa pratensis*) and tall fescue (*Festuca arundinacea*).

Forested habitats are distributed throughout the Survey Area as forest stands and sparse trees and comprise approximately 12 percent of the Survey Area. Of this percentage, deciduous forests make up 10 percent, mixed forests make up two percent, and evergreen forests make up less than one percent. This habitat consists of mixed age hackberry (*Celtis occidentalis*), silver maple (*Acer saccharinum*), black cherry (*Prunus serotina*), black walnut (*Juglans nigra*), American sycamore (*Platanus occidentalis*), and common mulberry (*Morus alba*). Forested areas provide significant benefits to wildlife including federally protected bat species (Table 2-1) and migratory bird species.

Small wetlands observed during the field habitat assessment are distributed throughout the Survey Area and include farmed, emergent, and open bodies of water (palustrine unconsolidated bottom). These

² <https://www.mrlc.gov/data/nlcd-2019-land-cover-conus>

wetlands comprise approximately 1.4 percent of the habitat within the Survey Area (Burns & McDonnell 2022³). Wetlands and water habitat provide potential habitat for several bat species (Table 2-1).

The rest of the Survey Area (approximately four percent) is made up of developed, open space, developed, low intensity, developed, medium intensity, and developed, high intensity.

3.1 Analysis by Species

Species identified for analysis was generated through the USFWS IPaC Species List on April 14, 2022 (Project Code: 2022-0032255, Appendix B).

3.1.1 Federally Endangered Species

Gray bat

The gray bat is a year-round cave obligate species, wintering in deep vertical caves and roosting in caves along rivers in the summer. The gray bat occupies a limited geographic range in limestone karst areas of the southeastern United States, including Kentucky. No caves were identified within the vicinity of the Project. Two limestone karst sinkholes associated with W-6 and adjacent to S-6 were identified within the Survey Area, but do not have suitable roosting habitat. For this reason, the Project is anticipated to have *No Effect* on the gray bat. The effect determination for the gray bat is included in the consistency letter generated by the USFWS Kentucky Determination Key (Appendix B).

Indiana bat

The Indiana bat hibernates in caves or abandoned mines during the winter and roosts beneath loose bark of live, dead, or dying trees during the summer. The Indiana bat tends to forage and travel along forest edges, and rarely flies far from forest habitat. It is found over most of the eastern half of the United States. Critical habitat has been designated for the Indiana bat (42 FR 47840 47845, September 22, 1977). The Project is not located within designated critical habitat and USFWS Kentucky Field Office IPaC identified potential habitat within the project area. The IPaC did not identify known hibernacula, swarming, or maternity roost trees within the vicinity of the Project.

The Project will conduct tree clearing within the proposed ROW. Tree clearing along the Project will be done in accordance with the Technical Processes Document for the Memorandum of Understanding (MOU) between USFWS and LG&E-KU (F17MU00018/FWS 2017-B-0713). Anticipated areas of potential tree clearing within the existing ROW totaling approximately 23.6 acres were identified;

³ Burns & McDonnell 2022. Wetland Delineation Report for the Glendale 345kV Transmission Lines Project.

however, only approximately 6.4 acres of forested area appears to contain suitable roosting habitat. Tree clearing and suitable habitat are depicted on Figure 3 in Appendix A. LG&E-KU will conduct all tree clearing activities on the Project in accordance with the Technical Processes Document for the MOU between USFWS and LG&E-KU and the Work Practices Descriptions for Indiana Bat and Northern Long-Eared Bat (F17MU00018/FWS 2017-B-0713). For tree clearing activities, LG&E-KU shall implement the Technical Process Document and provide quarterly reports to the USFWS documenting projects as detailed in the Technical Process Document. LG&E-KU's MOU will expire April 30, 2025.

Project activities and continued maintenance descriptions are found within LG&E-KU's MOU document and include:

- Work Practice #2. Clearing
- Work Practice #3. Right of way Enhancement
- Work Practice #8. Emergency Actions

Based on the activities proposed for this Project and the implementation of the MOU, it is anticipated the project activities *May Affect, Likely to Adversely Affect* the Indiana bat. LG&E-KU will mitigate for the removal of suitable forested habitat with a contribution to the Imperiled Bat Conservation Fund (IBCF) using a 1:1 ratio of suitable habitat removal per the Forest-Dwelling Bat Conservation Strategy for the Commonwealth of Kentucky (June 2016).

Snuffbox mussel

The snuffbox mussel is found in multiple rivers within Kentucky, which include the Ohio, Green, Kentucky, Tennessee, and Cumberland rivers. This mussel can be found in medium to large rivers within shallow riffles in gravel and sand substrate. No critical habitat has been designated for this species.

No live snuffbox mussels or relic mussel shells were identified during the onsite habitat assessment. Due to the timing of the survey, any live mussels were likely buried underground and dormant during the winter months. Suitable habitat was identified within the Survey Area; however, no in-stream impacts will occur to streams with suitable habitat as a result of the Project. Based on this assessment, the Project is expected to have *No Effect* on the snuffbox mussel.

3.1.2 Federally Threatened Species

Northern long-eared bat

The northern long-eared bat hibernates in caves and abandon mines in the winter, and roost in exfoliating/loose tree bark of living and dead trees, or cavities and hollows of dead trees. Its range includes much of the eastern and north central United States and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. A review by the Office of Kentucky Nature Preserves (KNP) Natural Heritage Program Database indicates that Known Summer 1 habitat is present within one mile of the Project Area (Appendix C). Additionally, the Kentucky Department of Fish and Wildlife (KY DFW) review indicates county records for northern long-eared bat in Hardin County.⁴

Anticipated areas of potential tree clearing within the existing ROW totaling approximately 23.6 acres were identified; however, only approximately 6.4 acres of forested area appears to contain suitable roosting habitat. Tree clearing and suitable habitat are depicted on Figure 3 in Appendix A. Tree clearing activities associated with this Project and the resulting take that may occur are not prohibited according to the ESA Section 4(d) rule and the consistent activities listed in the Programmatic Biological Opinion (PBO) (Appendix B). As such, the ESA consultation with the USFWS regarding the northern long-eared bat is considered complete and no further action is required. Tree clearing associated with this Project will be conducted according to the terms of LG&E-KU's existing MOU with the USFWS. In addition, tree clearing is proposed outside of June and July. Based on this assessment, the Project is anticipated to have *No Effect* on the Northern long-eared bat.

4.0 CONCLUSIONS

A desktop review and onsite habitat assessments were completed to identify potential habitat within the Survey Area capable of supporting federally protected species.

The proposed Project is anticipated to have *No Effect* on the gray bat, Northern long-eared bat, and snuffbox mussel.

The Project *May Affect, Likely to Adversely Affect* the Indiana bat. Where tree clearing may be conducted, LG&E-KU will complete activities in accordance with the Technical Processes Document for the MOU between USFWS and LG&E-KU (F17MU00018/FWS 2017-B-0713). Where project work may adversely

⁴ <https://fw.ky.gov/Wildlife/Documents/northernlongearedbatcountydistribution.pdf>

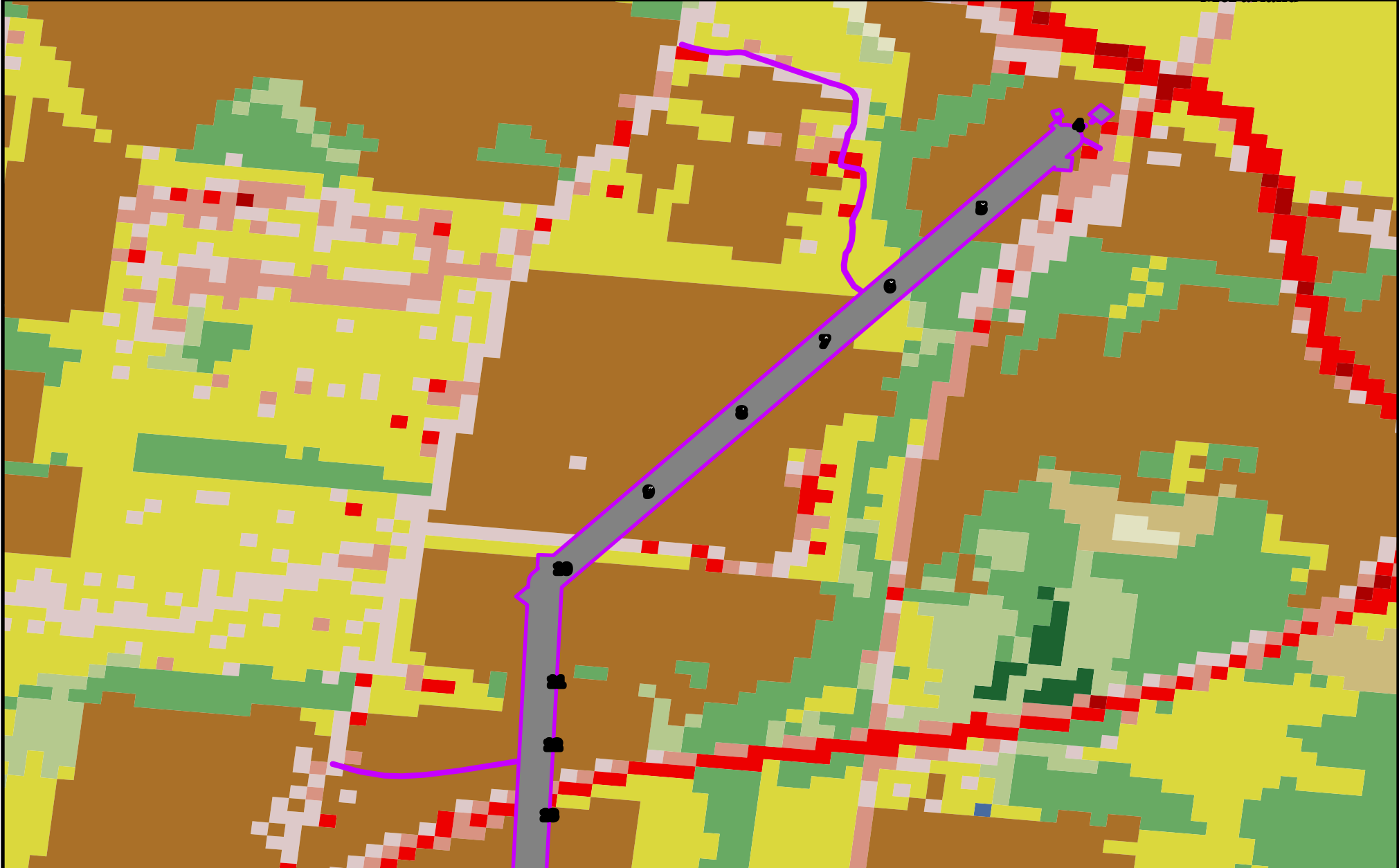
affect Indiana bat, LG&E-KU will use the acreage of suitable habitat to be impacted (Section 3.1.1) and follow the MOU protocol for reporting as well as mitigation by contribution to the IBCF.

The proposed Project is not anticipated to impact BCC species covered under the MBTA due to their mobility.

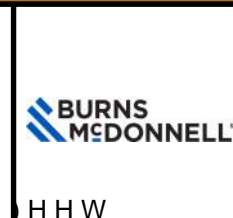
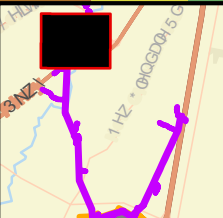
APPENDIX A – FIGURES

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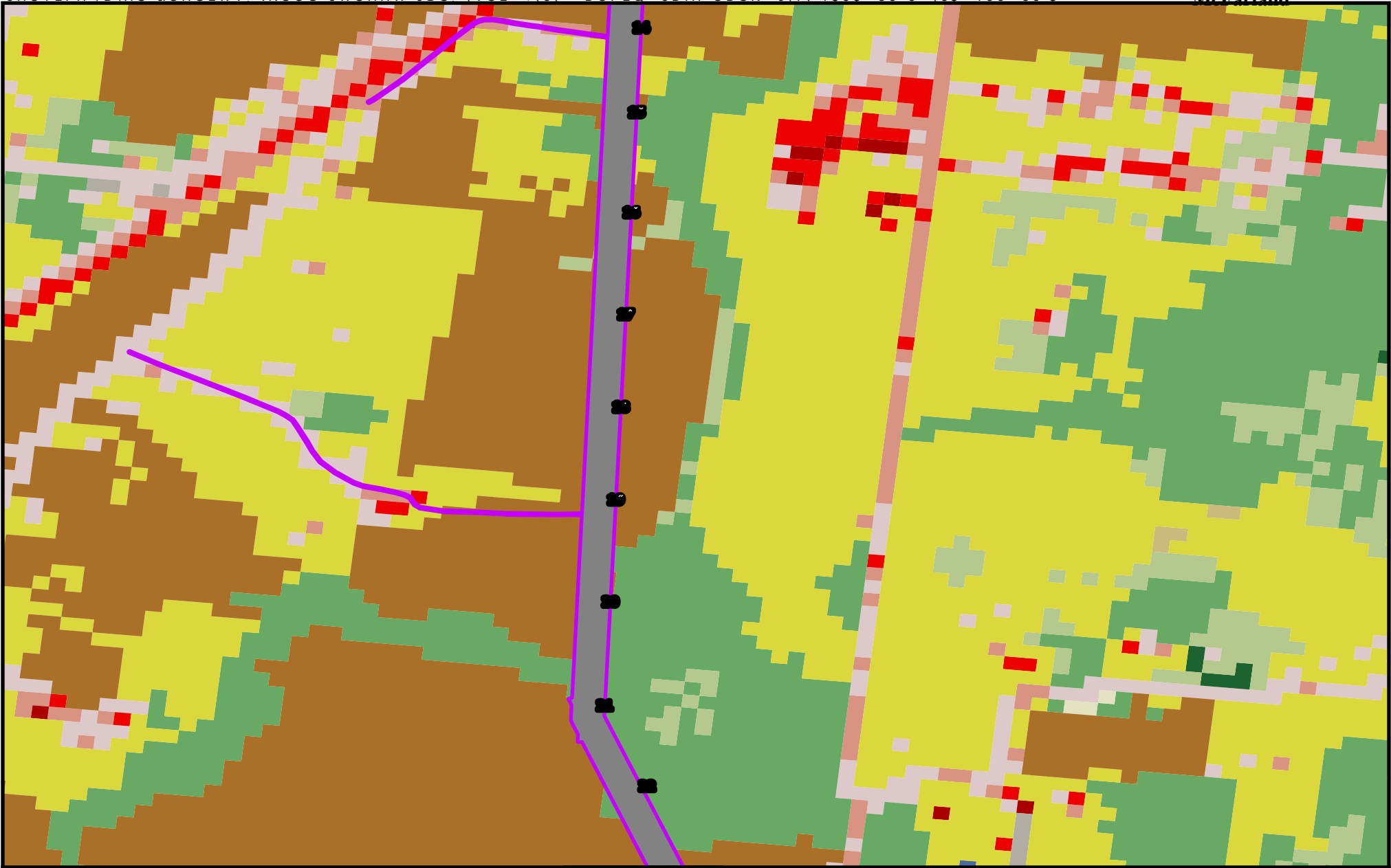
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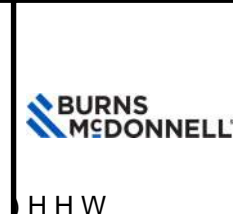
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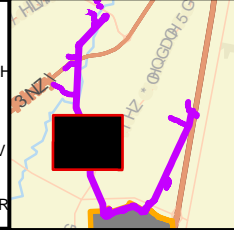


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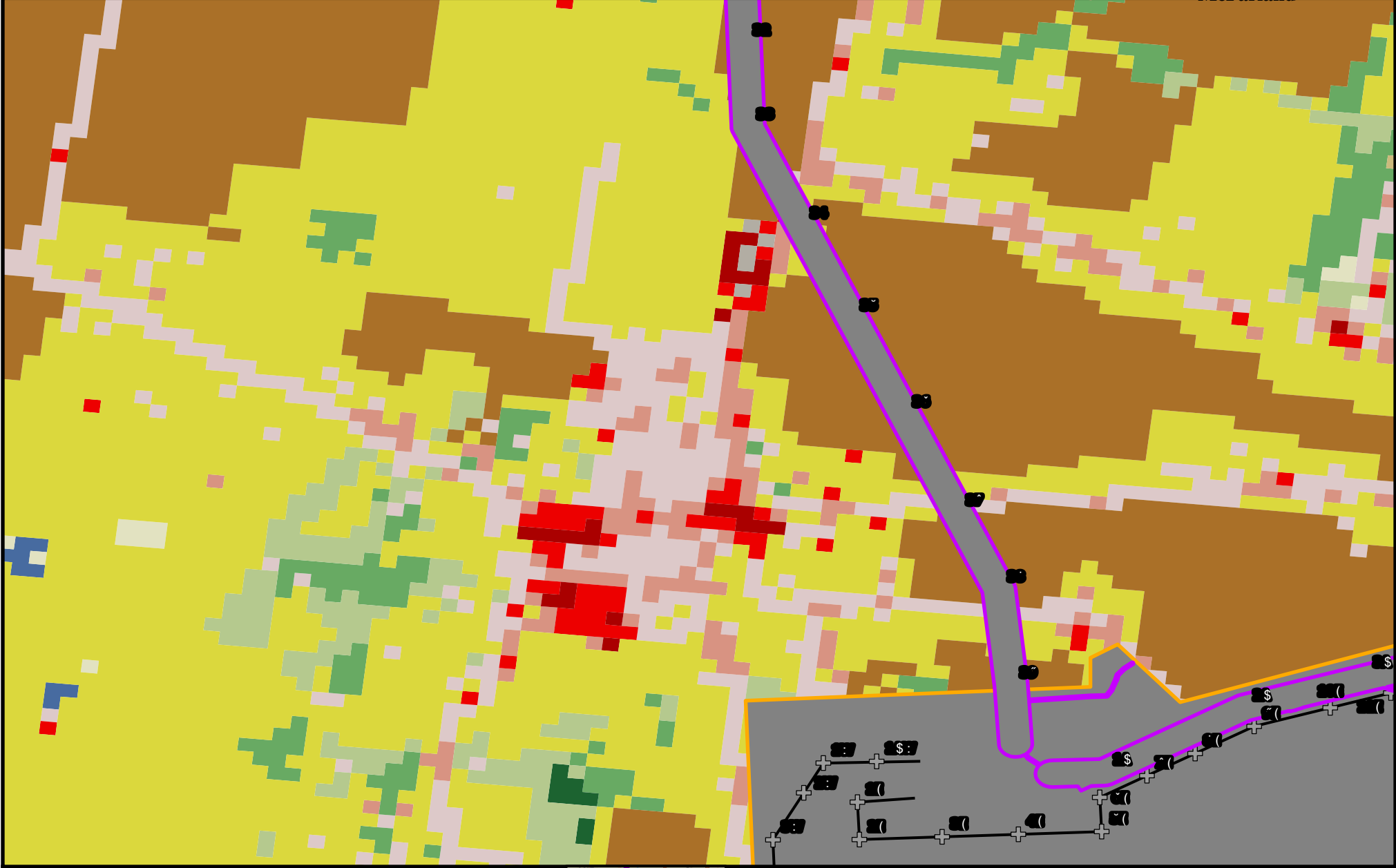


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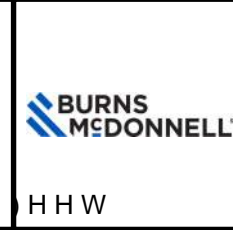
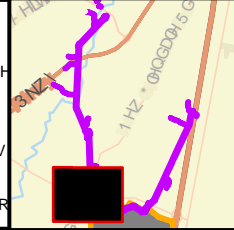
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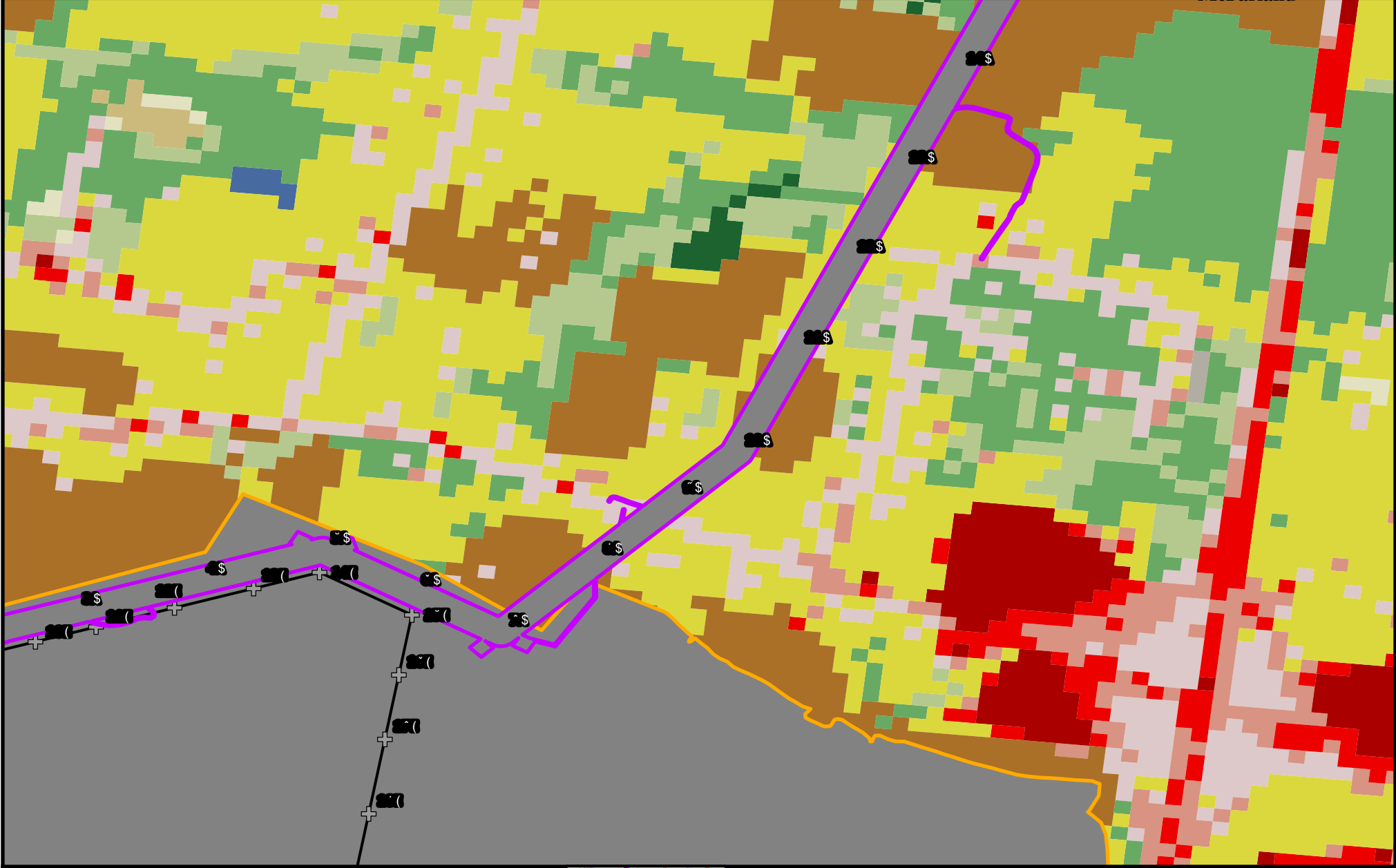
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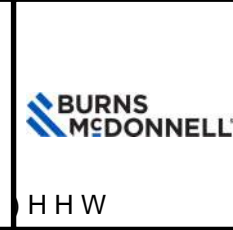
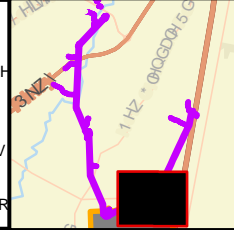
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McFarland



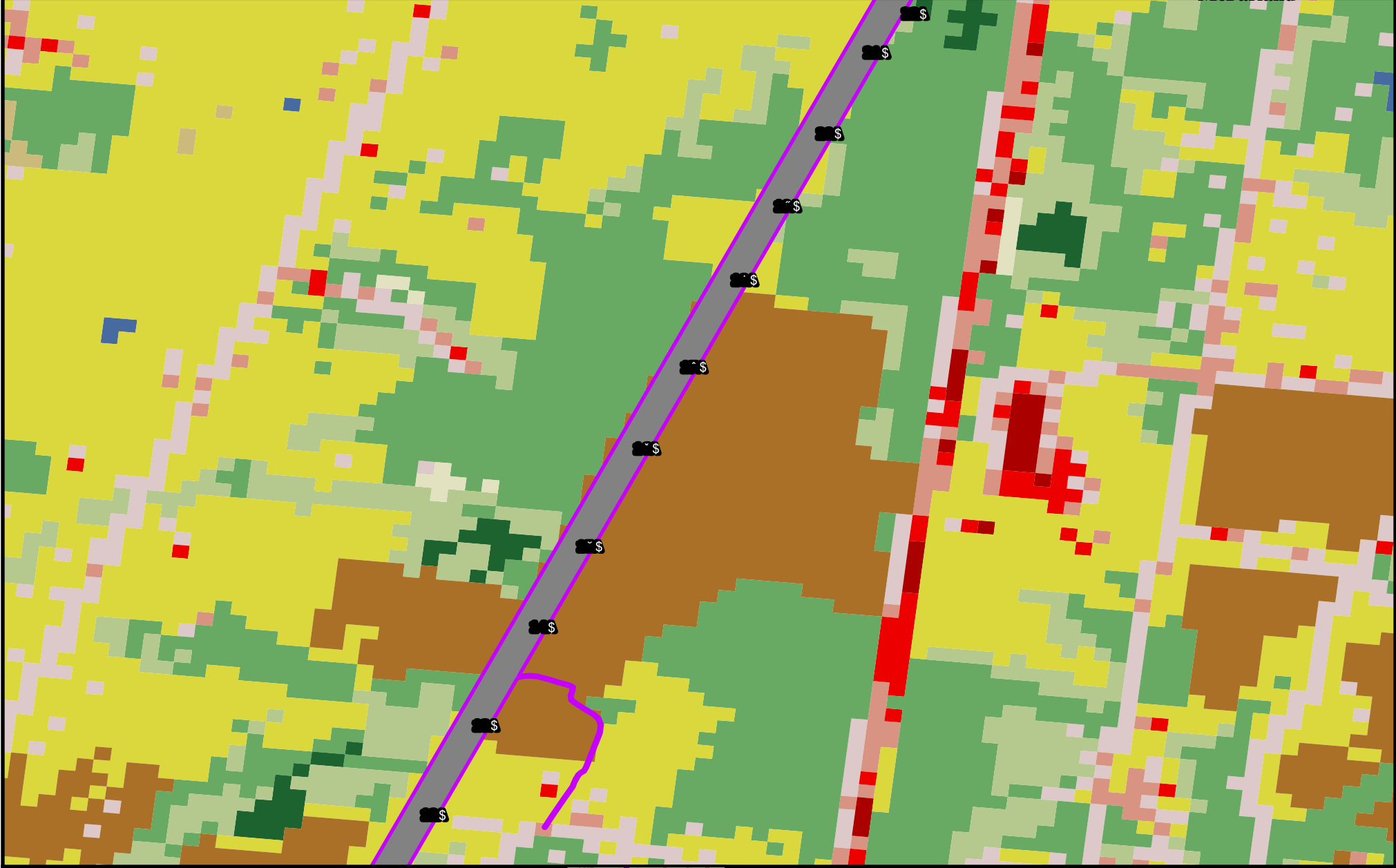
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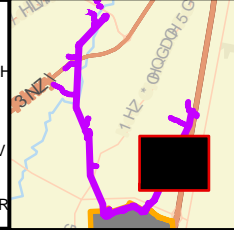
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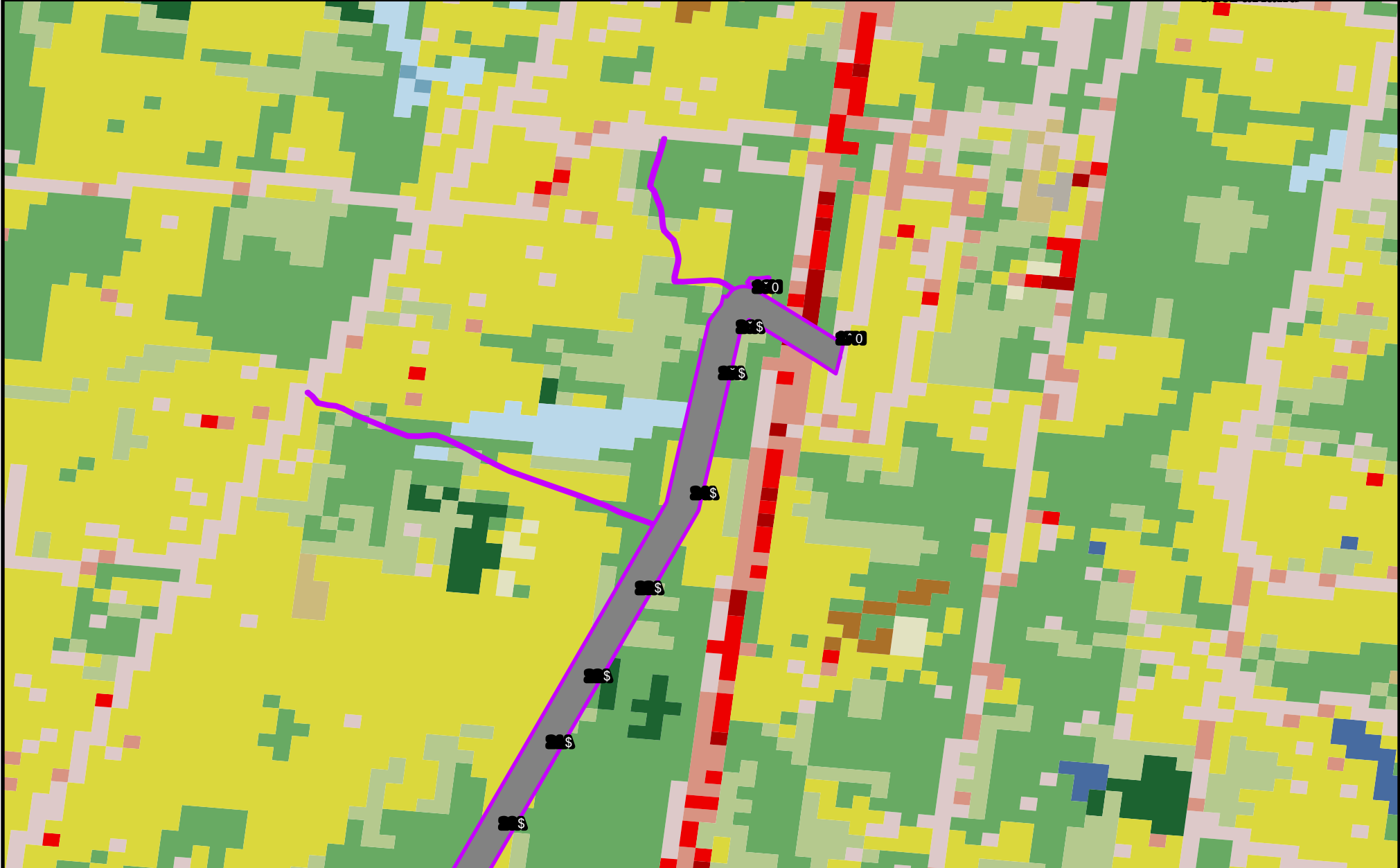
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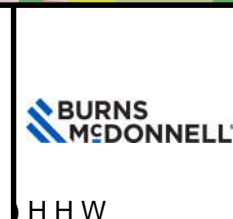
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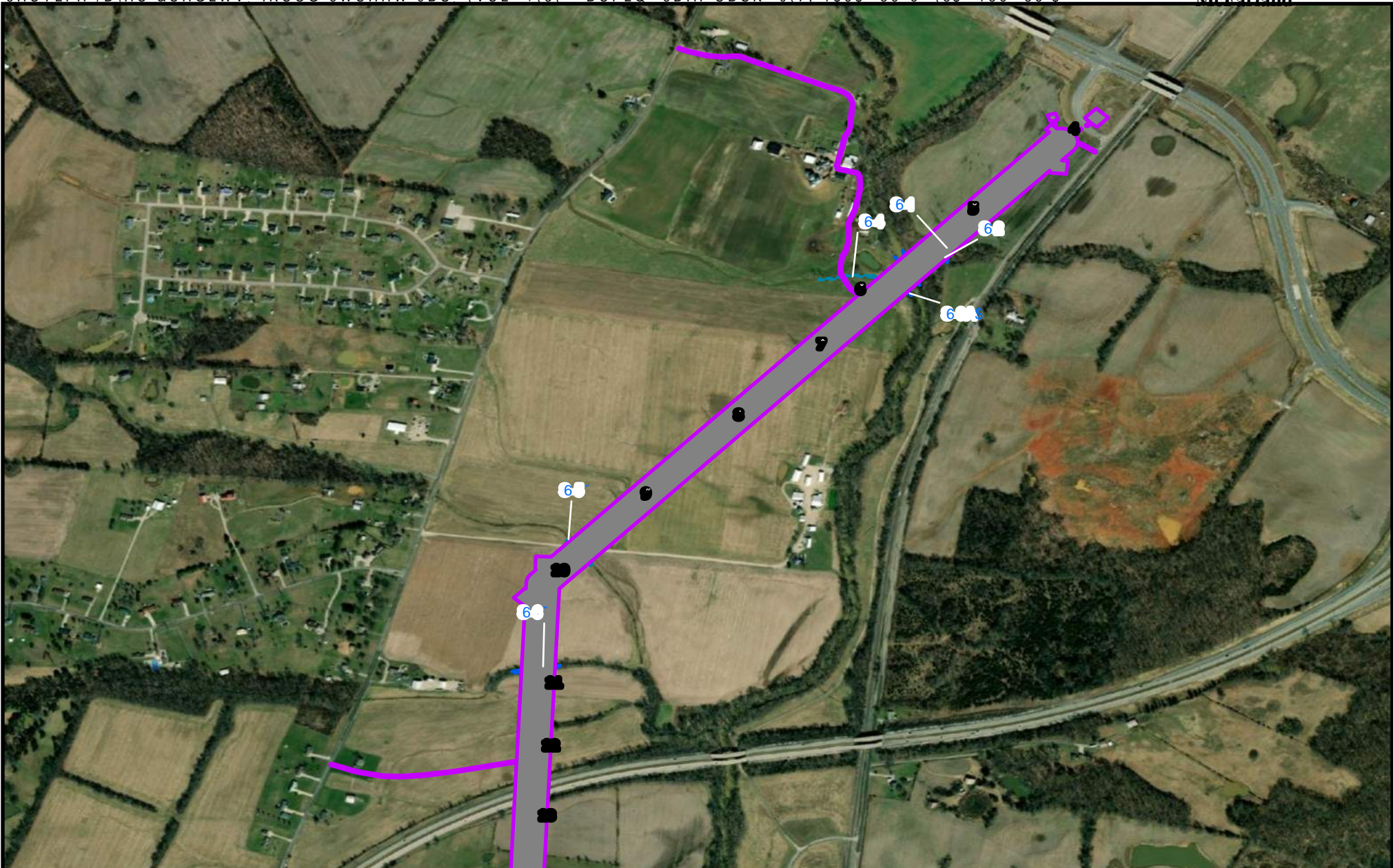
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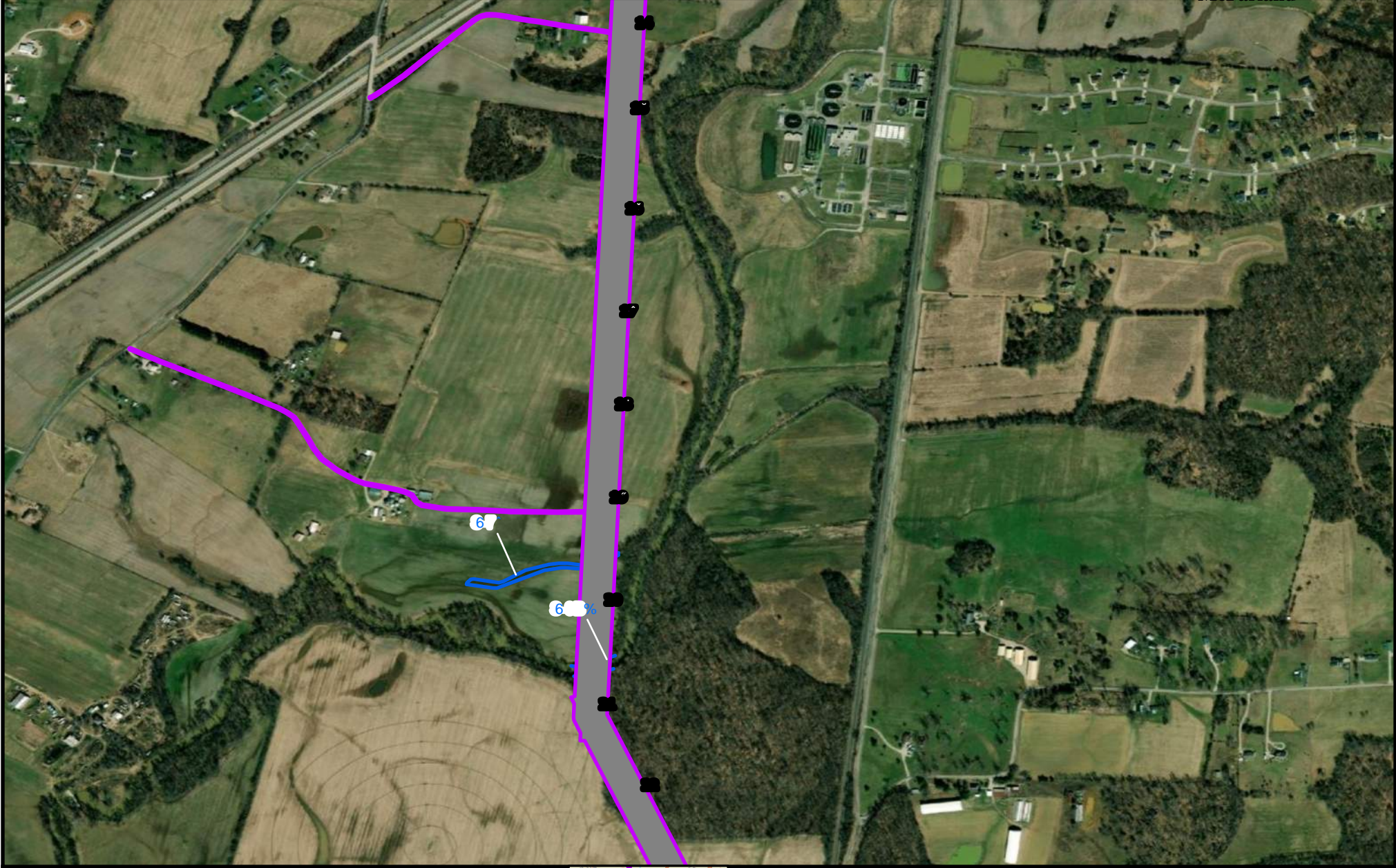


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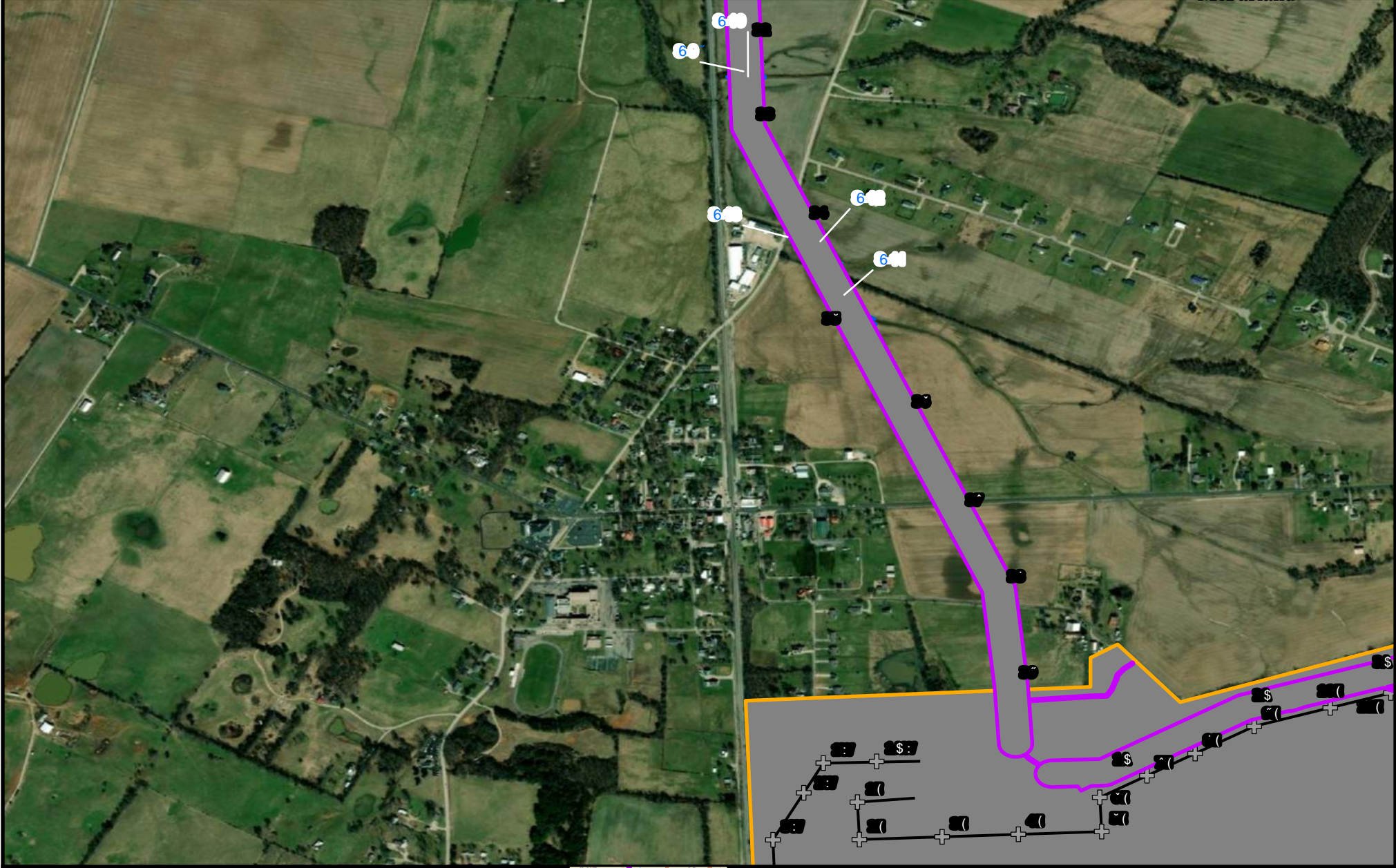
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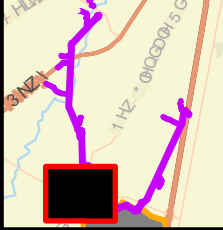
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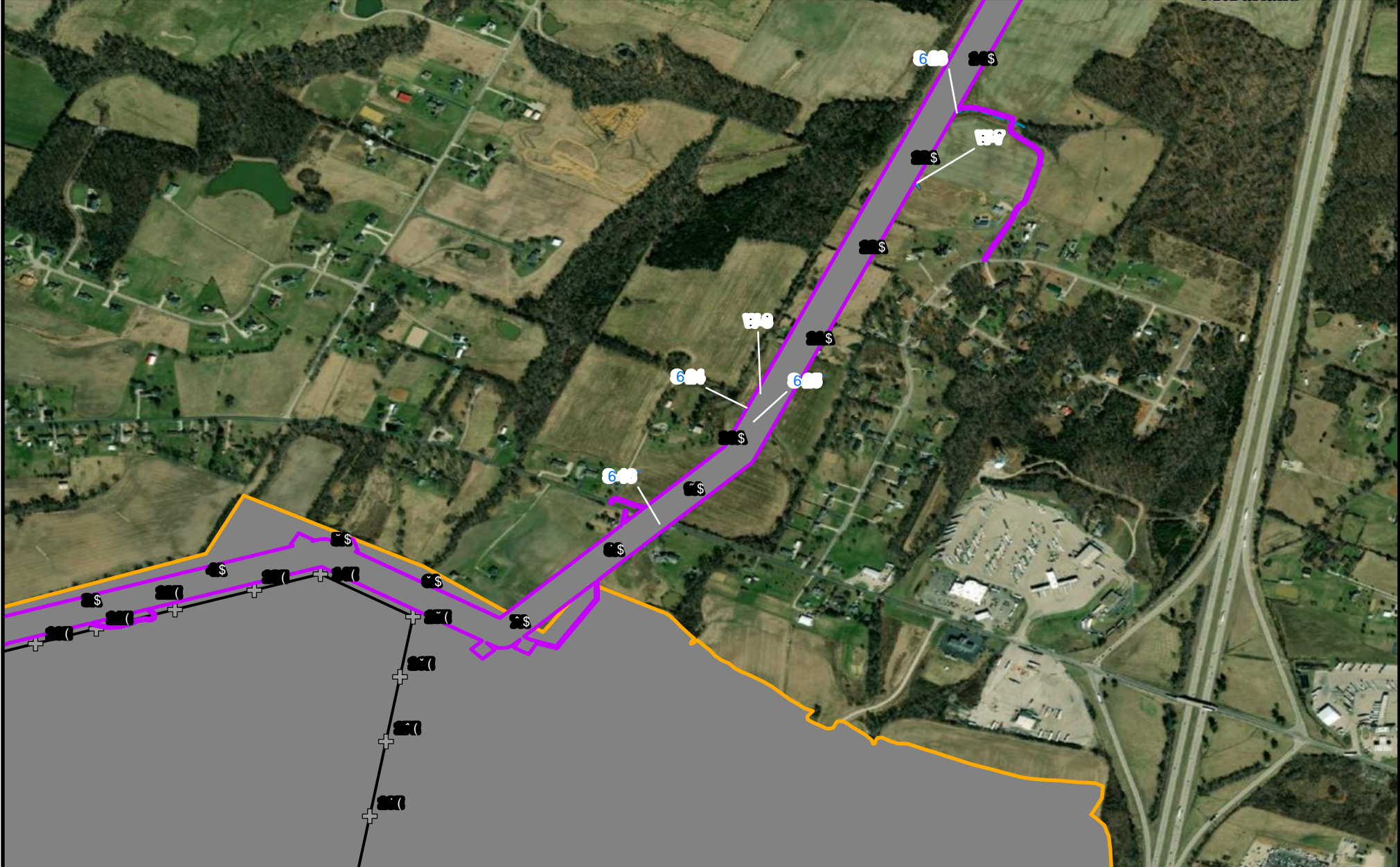


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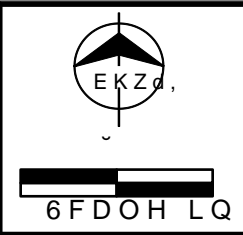
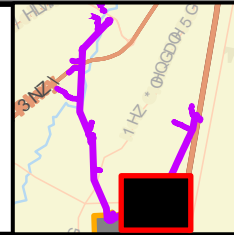
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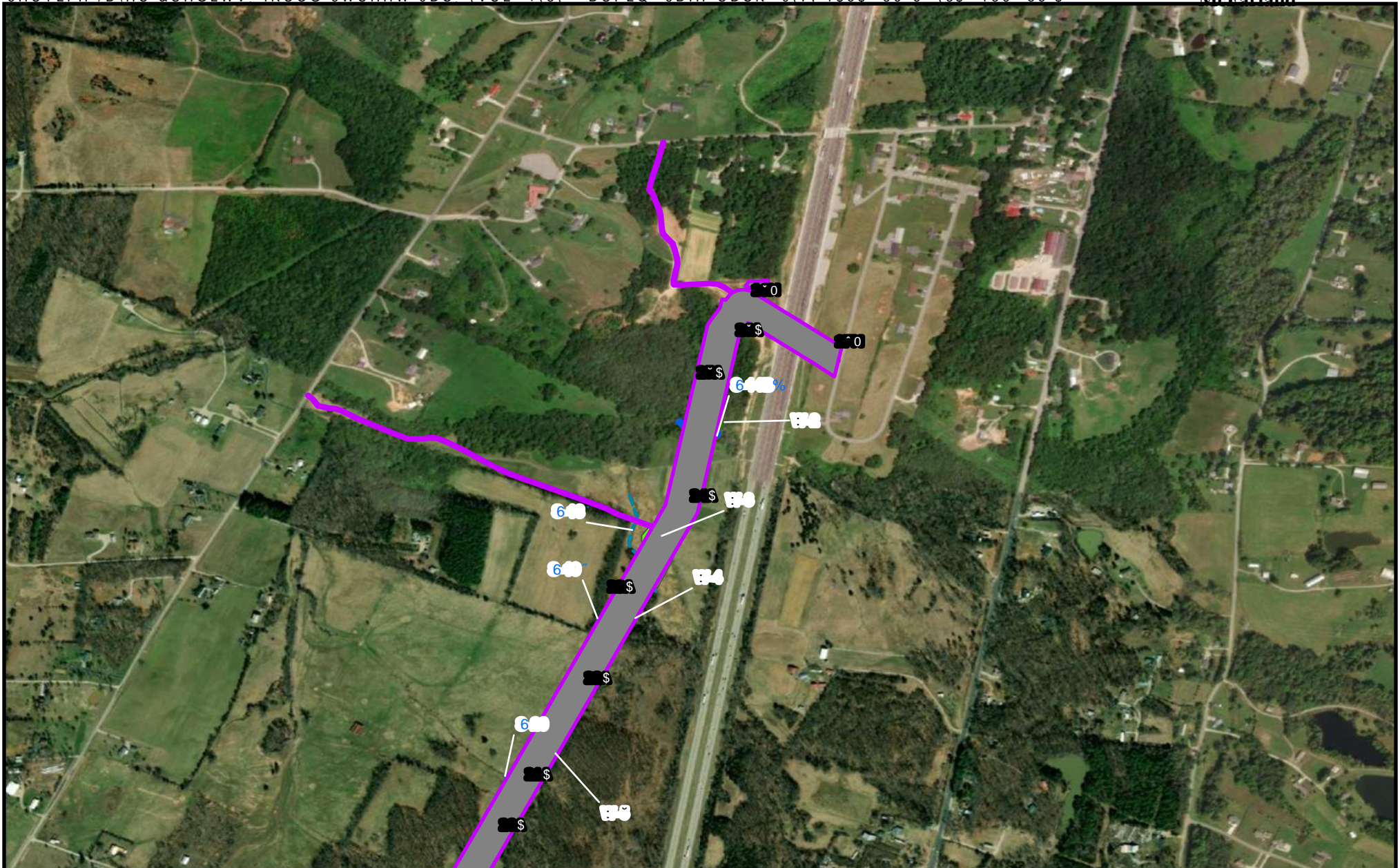


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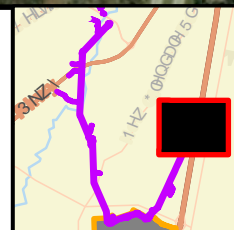
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**APPENDIX B – USFWS INFORMATION FOR PLANNING AND CONSULATION
(IPAC)**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0468 Fax: (502) 695-1024
<http://www.fws.gov/frankfort/>

In Reply Refer To:

April 14, 2022

Project Code: 2022-0032255

Project Name: LG&E-KU Glendale 345kV Transmission Lines Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

04/14/2022

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List

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Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office

J C Watts Federal Building, Room 265

330 West Broadway

Frankfort, KY 40601-8670

(502) 695-0468

04/14/2022

Project Summary

Project Code: 2022-0032255
Event Code: None
Project Name: LG&E-KU Glendale 345kV Transmission Lines Project
Project Type: Transmission Line - New Constr - Above Ground
Project Description: The Project consists of two new 345kV transmission lines (LI-167000 and LI-167444) totaling 8.2 miles as well as the use of access routes totaling approximately 12 miles. LI-167000 is approximately 4.8 miles totaling 35 structures. LI-167444 is approximately 3.4 miles totaling 27 structures. The Project will be located with a new 200-foot right-of-way (ROW). The Project Area encompasses a total of 212 acres, which includes the 200-foot ROW and 15-foot-wide access roads that extend outside of the ROW.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.61709895,-85.86896032576435,14z>



Counties: Hardin County, Kentucky

04/14/2022

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.
-

04/14/2022

Mammals

NAME	STATUS
<p>Gray Bat <i>Myotis grisescens</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> The project area includes potential gray bat habitat. <p>Species profile: https://ecos.fws.gov/ecp/species/6329 General project design guidelines: https://ipac.ecosphere.fws.gov/project/Z6FJQB6SZVARFFHG75UXYBEZ4Q/documents/generated/6422.pdf</p>	Endangered
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>There is final critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species. <p>Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/Z6FJQB6SZVARFFHG75UXYBEZ4Q/documents/generated/6422.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule. For reporting purposes, please use the "streamlined consultation form," linked to in the "general project design guidelines" for the species. <p>Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/Z6FJQB6SZVARFFHG75UXYBEZ4Q/documents/generated/6422.pdf</p>	Threatened

Clams

NAME	STATUS
<p>Snuffbox Mussel <i>Epioblasma triquetra</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135</p>	Endangered

Insects

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743</p>	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

04/14/2022

IPaC User Contact Information

Agency: Burns & McDonnell Engineering Company, Inc.
Name: Christian King
Address: 200 W Adams St
Address Line 2: Suite 2700
City: Chicago
State: IL
Zip: 60606
Email: cmking2@burnsmcd.com
Phone: 8167826028

Lead Agency Contact Information

Lead Agency: Army Corps of Engineers

**APPENDIX C – OFFICE OF KENTUCKY NATURE PRESERVES NATURAL
HERITAGE PROGRAM DATABASE**



ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
OFFICE OF KENTUCKY NATURE PRESERVES

SUNNI CARR
EXECUTIVE DIRECTOR

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-573-2886
TELEFAX: 502-564-7484

March 4, 2022

Sarah Bolitho
Burns & McDonnell
1431 Opus Place
Downers Grove, IL 60515

Project: LGEKU Glendale
Project ID: 22-0143
Project Type: Standard (*customers will be invoiced), 1 mile buffer
(\$120 fee)
Site Acreage: 180.51
Site Lat/Lon: 37.626467 / -85.907765
County: Hardin
USGS Quad: CECILIA; ELIZABETHTOWN; SONORA; TONIEVILLE
Watershed HUC12: Cox Run-Nolin River; Lower Valley Creek

Dear Sarah Bolitho,

This letter is in response to your data request for the project referenced above. We have reviewed our Natural Heritage Program Database to determine if any of the endangered, threatened, or special concern plants and animals or exemplary natural communities monitored by the Office of Kentucky Nature Preserves occur within your general project area. Your project does pose a concern at this time, therefore please see the attached reports and [report key](#) for more detailed information.

I would like to take this opportunity to remind you of the terms of the data request license, which you agreed upon in order to submit your request. The license agreement states "Data and data products received from the Office of Kentucky Nature Preserves, including any portion thereof, may not be reproduced in any form or by any means without the express written authorization of the Office of Kentucky Nature Preserves." The exact location of plants, animals, and natural communities, if released by the Office of Kentucky Nature Preserves, may not be released in any document or correspondence. These products are provided on a temporary basis for the express project (described above) of the requester, and may not be redistributed, resold or copied without the written permission of the Biological Assessment Branch (300 Sower Blvd - 4th Floor, Frankfort, KY, 40601. Phone: 502-782-7828).

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the

Project ID: 22-0143
March 4, 2022
Page 2

result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed and new plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. We would greatly appreciate receiving any pertinent information obtained as a result of on-site surveys.

If you have any questions, or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Alexis R Schoenlaub
Geoprocessing Specialist

Standard Occurrence Report
KNP monitored species within 1 Miles of Project Area

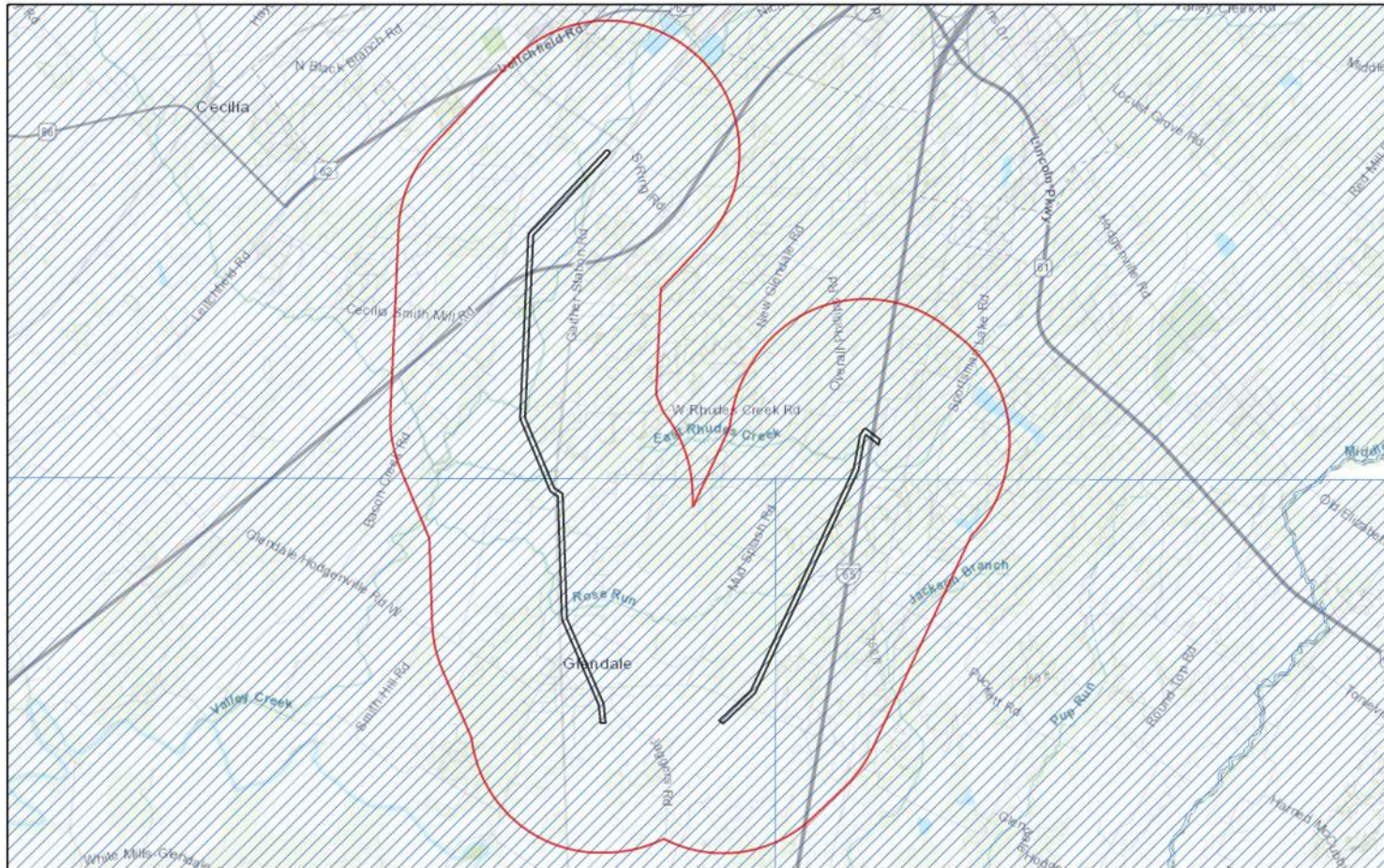
EO ID	Scientific Name	Common Name	GRank	SRank	SPROT	USES	STWG	Last Obs Date	Precision	EO Rank	Lat / Lon	Directions	Habitat
15784	<i>Lanius ludovicianus</i>	Loggerhead Shrike	G4	S3S4B,S 4N	S	SOMC	Y	1991-06-10	Q	NR	37.5625 / -85.8125	CW block of quadrangle.	
15787	<i>Lanius ludovicianus</i>	Loggerhead Shrike	G4	S3S4B,S 4N	S	SOMC	Y	1990-06-11	Q	NR	37.5625 / -85.9375	CW block of quadrangle.	
10371	<i>Liatris cylindracea</i>	Slender Blazingstar	G5	S2S3	T			No Date	C	H	37.6978 / -85.9635	Hardin County.	Dry calcareous or siliceous soil, hillside glades, prairie openings.
8422	<i>Nannothemis bella</i>	Elfin Skimmer	G4G5	S1	E			1948-06-08	C	H	37.6978 / -85.9635	Radcliffe, Hardin County.	Bogs, sometimes calcareous fens with some sedge meadows and marl deposits (Dunkle 2000). Adults are often found near the margin of the pond or bog in small pockets of sunshine. Larvae seem to prefer shallow holes near the edge of the water, and have been
7950	<i>Silene regia</i>	Royal Catchfly	G3	S1	E			1982-07-18	C	H		Sensitive Element - Contact OKNP at EEC.KYBAT@ky.gov	Dry woods, barrens and prairies, and on KY roadsides.

Bat Habitats within 1 Miles of Project Area




Habitat	Species	USFWS
SUMMER 1	<i>M. septentrionalis</i>	Contact USFWS at (502) 695-0468 or KentuckyES@fws.gov

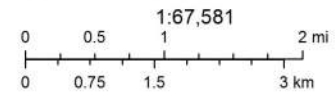
THESE DATA ARE VALID ONLY ON THE DATE ON WHICH THE REPORT WAS GENERATED.
 THESE DATA MAY ONLY BE USED FOR THE PROJECT NAMED ABOVE.

LGEKU Glendale



March 4, 2022

-  Project Boundary
-  Buffered Project Boundary
-  Element Occurrences



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

APPENDIX D – PHOTOGRAPH LOG



Photograph 1: Representative photo of potential roost tree, facing west.



Photograph 2: Representative photo of potential roost tree, facing northwest.

Glendale 345kV Transmission
Lines Project
LG&E-KU Energy Services
Company



Protected Species Habitat
Photographs
March 8-10, 2022
Hardin County, KY



Photograph 3: Representative photo of potential roost tree habitat, facing southeast.



Photograph 4: Representative photo of potential roost tree, facing east.

Glendale 345kV Transmission
Lines Project
LG&E-KU Energy Services
Company



Protected Species Habitat
Photographs
March 8-10, 2022
Hardin County, KY



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